


Occupational Stress and Its Determinants among Red Crescent Society Rescuers in Markazi Province, Iran

Mohsen Khorram¹ , Saeed Givhchi² , Ghasem Mehrabadi³ ,
Seyed Loghman Hosseini⁴ , Ehahe Nebton⁵ 

Received: 05 May. 2026

Accepted: 06 Jun. 2026

Original Article

Abstract

INTRODUCTION: Roadside rescuers are exposed to high levels of occupational stress due to the critical nature of their missions and their continual exposure to traumatic events. However, empirical evidence regarding the status of occupational stress among this workforce in Iran—particularly at the provincial level—remains limited. Therefore, this study aimed to assess the level of occupational stress, identify its dominant dimensions, and examine the role of socio-demographic variables in predicting occupational stress among Red Crescent Society (RCS) rescuers in Markazi province.

METHODS: This cross-sectional descriptive–correlational study was conducted on 327 rescuers working in road-based rescue stations in Markazi province in 2025. Participants were selected using proportionate stratified random sampling. Data were collected using the standardized Philip L. Rice Occupational Stress Questionnaire (57 items across three dimensions: interpersonal relations, physical working conditions, and job interests) and a demographic information form. Instrument reliability was confirmed using Cronbach’s alpha coefficient (0.89). Data were analyzed using independent t-tests, one-way ANOVA, and multiple linear regression.

FINDINGS: The mean total occupational stress score was 187.4 ± 26.8 out of 285 (65.7%), which was classified as high based on quartile distribution. Among the dimensions, interpersonal relations (92.1 ± 14.5) and physical working conditions (71.8 ± 12.1) were at a high level, while job interests (27.8 ± 4.2) were at a moderate level. Also, married rescuers experienced significantly higher stress than single participants (192.5 ± 24.1 vs. 170.3 ± 28.9 , $p < 0.001$). In addition, participants with more than 20 years of work experience reported significantly higher stress levels compared with other groups ($p < 0.01$). Multiple linear regression analysis showed that marital status ($\beta = 0.35$) and work experience ($\beta = 0.28$) together explained 24% of the variance in occupational stress ($R^2 = 0.24$, $p < 0.001$).

CONCLUSION: The findings indicate that the high level of occupational stress among RCS rescuers in Markazi province represents a significant occupational health challenge. Marital status and longer work experience were identified as key factors associated with increased occupational stress. Accordingly, the design and implementation of targeted psychological interventions—particularly for married and highly experienced rescuers—including stress management training, family-centered counseling services, and shift schedule optimization, may help reduce long-term stress consequences and improve the performance and sustainability of these operational personnel.

Keywords: Occupational stress; Rescuers; Red Crescent Society (RCS); Work experience.

How to cite this article. Khorram M, Givhchi S, Mehrabadi GH, Hosseini SL, Nebton E. Occupational Stress and Its Determinants among Red Crescent Society Rescuers in Markazi Province, Iran. J Rescue Relief 2026; 18(2):81-89.

Introduction

Work is an aspect of life that, beyond providing financial support, fulfills several fundamental human needs such as psychological and physical stimulation, social interaction, and a sense of self-worth. However, work can also be a source of psychological stress (1). Evidence from

1. PhD Student in Disaster Engineering, Faculty of Engineering, University of Tehran, Tehran, Iran
2. Associate Professor, Faculty of Environment, College of Engineering, University of Tehran, Tehran, Iran
3. Medical Doctor, University of Tehran, Tehran, Iran
4. MSc in Occupational Health, Safety and Environment, Institute of Energy Higher Education, Tehran, Iran
5. MSc in Executive Management, Islamic Azad University, Tehran, Iran

Correspondence to: Saeed Givhchi, Email: Givhchi@ut.ac.ir